

LID WITH WINDOW HERMETICALLY SEALED
TO FRAME, AND A METHOD OF MAKING IT

ABSTRACT OF THE DISCLOSURE

5 An apparatus (10) includes a digital micromirror
device (16) disposed within a housing (11) that has an
opening (13) hermetically sealed by a lid (17). The lid
includes a radiation transmissive window (22) with
peripheral edges fixedly coupled by an annular sealing
section (23) to a metal frame (21). The sealing section
engages a frame surface oxidized in a wet nitrogen
furnace. The sealing section melts at a temperature
10 lower than the window or frame. The sealing section
includes two center rings (151, 152) made of sealing
glass that are respectively bonded to the window and
frame and to each other. The sealing section also
includes inner and outer rings (152, 157, 158) made of
15 sealing glass and disposed on opposite sides of the
center rings to protect the center rings from
environmental factors.